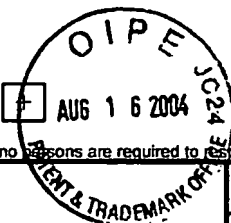


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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
Sheet	1	of	2	Application Number	10/802,116
				Filing Date	03-16-2004
				First Named Inventor	Jefferson G. Shingleton
				Group Art Unit	1709
				Examiner Name	Asha Hall
				Attorney Docket Number	PWRL 1030-3

U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
/AH/	A1	4,000,734		Matlock et al.	01-04-1977	
	A2	4,103,672		Meyer	08-01-1978	
	A3	4,138,994		Shipley, Jr.	02-13-1979	
	A4	4,159,710		Prast	07-03-1979	
	A5	4,173,213		Kelly	11-06-1979	
	A6	4,184,482		Cohen	01-22-1980	
	A7	4,187,123		Diggs	02-05-1980	
	A8	4,316,448		Dodge	02-23-1982	
	A9	4,345,582		Naaman	08-24-1982	
	A10	4,370,974		Maxey	02-01-1983	
	A11	4,644,933		Gregory	02-24-1987	
	A12	4,585,318		Seifert	04-29-1986	
	A13	4,771,764		Cluff	09-20-1988	
	A14	4,995,377		Eiden	02-26-1991	
	A15	4,966,311		Maitlin et al.	10-30-1990	
	A16	5,131,955		Stern et al.	07-21-1992	
	A17	5,228,924		Barker et al.	07-20-1993	
	A18	5,253,637		Maiden	10-19-1993	
✓	A19	5,542,409		Sampayo	08-06-1996	
	A20	5,730,117		Berger	03-24-1998	

FOREIGN PATENT DOCUMENTS								
Examiner Initials ¹	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
/AH/	B1	AU	520 336	B	Vulcan Australia Ltd	01-28-1982		
↓	B2	DE	386 264	C	Carl Zeiss	12-07-1923	copy not available	
	B3	DE	9013951	UI	Inst. for Solar Energy	05-02-1991		
	B4	FR	2 608 741	A	Gerard	06-24-1988		
	B5	GB	2357785	A	Jeh-kun Lah	04-07-2001		
	B6	GB	733010		Martindale	06-07-1955		
	B7	JP	59 231362	A	Matsushita Electric	12-26-1984		
	B8	JP	56 118021	A	Kureha Chem Ind Co	09-16-1981		
	B9	JP	61 39585	A	Matsushita Electric	05-20-1984		
	↓	B10	JP	11340491	A	Sanyo Electric Co Ltd	10-12-1999	Patent Abstract

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
Application Number	107802,116				
Filing Date	03-16-2004				
First Named Inventor	Jefferson G. Shingleton				
Group Art Unit	1709				
Examiner Name	Asha Hall				
Attorney Docket Number	PWRL 1030-3				
Sheet	2	of	2		

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/802,116
		Filing Date	03-16-2004
		First Named Inventor	Jefferson G. Shingleton
		Group Art Unit	1709
		Examiner Name	Asha Hall
Sheet	1	of	1
		Attorney Docket Number	PWRL 1030-3

U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cha No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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	A4	5,776,262		Melchior	07-07-1998	
	A5	2003/0005954		Emoto et al.	01-09-2003	
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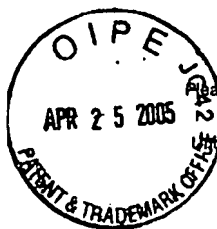
FOREIGN PATENT DOCUMENTS								
Examiner Initials ²	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	To
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² Unique citation designation number. ³ See attached Kinds of U.S. Patent Documents. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English language Translation is attached.

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		Application Number	10/802,116		
		Filing Date	03-16-2004		
		First Named Inventor	Jefferson G. Shingleton		
		Group Art Unit	1709		
		Examiner Name	Asha Hall		
Sheet	1	of	1	Attorney Docket Number	PWRL 1030-3

U.S. PATENT DOCUMENTS						
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		Number	Kind Code ² (if known)			
/AH/	A1	4,365,617		Bugash et al.	12-28-1982	
/AH/	A2	4,404,465		Miller	09-13-1983	
/AH/	A3	4,832,001		Baer	05-23-1989	
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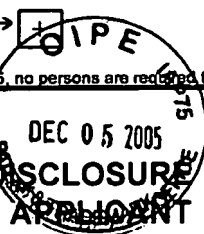
Examiner Signature	/Asha Hall/	Date Considered	05/31/2007
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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>			Complete if Known														
	Sheet	1	of	1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/802,116</td> </tr> <tr> <td>Filing Date</td> <td>03-16-2004</td> </tr> <tr> <td>First Named Inventor</td> <td>Jefferson G. Shingleton</td> </tr> <tr> <td>Group Art Unit</td> <td>1709</td> </tr> <tr> <td>Examiner Name</td> <td>Asha Hall</td> </tr> <tr> <td>Attorney Docket Number</td> <td>PWRL 1030-3</td> </tr> </table>	Application Number	10/802,116	Filing Date	03-16-2004	First Named Inventor	Jefferson G. Shingleton	Group Art Unit	1709	Examiner Name	Asha Hall	Attorney Docket Number	PWRL 1030-3
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Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office ³	Number ⁴	Kind Code ⁵ (If known)				
/AH/	B1	WO	00/31477	A1	Solar Energy Systems	06-02-2000		
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